

Technical Committee Report

To: Planning Commission

From: Technical Committee

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Application Number: DGA # L030253, Wellhead Protection Regulations

Recommended

Action: Approve amendments to the Redmond Community Development Guide to add or amend regulations to ensure continued protection of that portion of the public water supply that is provided by the aquifer underlying portions of the City. (See Exhibit A)

Reasons the Proposal should be Adopted:

It is critically important to protect water quality in the local aquifer. Approximately 40 percent of the City's water is supplied by groundwater wells located within the City limits. The remaining water is supplied through a connection with the City of Seattle water supply. Groundwater has proven to be a reliable and cost-effective source of drinking water. Groundwater wells have continued to produce even in the most severe droughts. Redmond's groundwater costs about one-third the cost of purchasing water from the City of Seattle. Future allocations of water from Seattle are uncertain and costs are anticipated to increase.

The aquifer that supplies the Redmond groundwater wells is relatively shallow and the overlying soils are highly permeable. Therefore, the aquifer is highly susceptible to contamination and the wells have experienced contamination events in the recent past. Contamination has been detected in Well 5 in 1986, in Wells 1, 2, and 4 in 1996, and in Well 3 in 2002. The wells are located in the

Sammamish and Bear Creek Valleys, areas with the most productive water yields. These areas are also where Redmond's downtown and southeast industrial areas are located. Current City groundwater protection regulations have proven inadequate in preventing and/or responding to contamination. The proposed regulations would add additional protection mechanisms to safeguard groundwater resources and are based upon best available science as required by RCW 36.70A and in accordance with Chapter 246-290 WAC.

I. Applicant and Reason for Proposal

A. Applicant

City of Redmond

B. Reason for Proposal

As a water service provider, the City of Redmond is required to protect public health and safety by preventing contamination of aquifers used by the City as potable drinking water sources. Specific regulatory requirements include:

1. The Washington State Department of Health requires that the City develop a Wellhead Protection Program and requires that Susceptibility Assessments be generated as part of its Wellhead Protection Plan to fulfill the public water system requirements of Chapter 246-290-WAC. The susceptibility assessment shall include "a delineation for each well, wellfield, or spring with the six month, one, five, and ten year time of travel boundaries marked, or boundaries established using alternative criteria approved by the Department in those settings where groundwater time of travel is not a reasonable delineation criteria." This proposal meets those criteria by delineating wellhead protection zones based on time of travel. (See Exhibit B for Agency responses.)
2. The Growth Management Act (Chapter 36.70A RCW) requires classification and protection of critical areas including critical aquifer recharge areas. The Department of Ecology (Ecology) provides guidance for methodologies to delineate aquifer recharge areas. Redmond's previous classification was based on soil types. Ecology's guidelines allow for using soil types, but modeling of time of travel zones is preferred if available. This proposal meets Ecology's recommendation.

II. Recommendation

Approve proposed amendments to the Community Development Guide to protect the City's aquifers and potable water resource.

III. Background

General Description of Water Supply

The City of Redmond obtains its public drinking water supply from two sources: City groundwater supply wells and a connection, called an intertie, to the City of Seattle surface water pipeline, known as the Tolt Eastside Supply Line (TESSL). This pipeline carries water from the Tolt Reservoir in the foothills of the Cascade Mountains across the Snoqualmie River Valley into Redmond then on to the north end of Seattle. Different areas of the City utilize either one source or the other. Generally, the City groundwater wells serve the area east of the Sammamish River and the connection to the Tolt system serves the area west of the Sammamish River. However, the water supply system permits the City to route water from either source to any part of the City. Interties also exist with the former Rose Hill Water District system and the City of Bellevue that both get water through TESSL. The Union Hill Water Association is a wholesale customer that buys water from Redmond and is connected with an intertie to the City's supply. There is also an emergency intertie with the Northeast Sammamish Sewer and Water District.

The City of Redmond groundwater supply consists of five wells located within the City limits. These wells draw water from the same sand and gravel aquifer at depths ranging from 41 to 68 feet below the surface. A complete description of well construction and capacity information for the five City supply wells can be found in the Wellhead Protection Report (1997) or in the City of Redmond Water System Plan (2003).

The source of water for the City of Redmond's five water supply wells is a highly permeable layer of sand and gravel located in the lower Bear Creek Valley and termed the Alluvial Aquifer. The sand and gravel layer is about 30 feet thick and is overlain by thin layers of clay, silty sand, and peat. Other aquifers in the area include the Upland Aquifer, located in the upland areas that border the lower Bear Creek Valley (Education, Novelty, and Union Hills) and the deeper regional Sea-Level Aquifer.

Groundwater in the Alluvial Aquifer is recharged from two sources: precipitation that falls directly on the Bear Creek and Evans Creek Valleys, and discharge from the Upland Aquifer. Previous studies indicate that approximately 26 inches of the 42 inches of annual precipitation provide recharge to the Alluvial Aquifer. In the upper reaches of Bear Creek where the Alluvial and Upland Aquifers are in contact, upward flow from the Upland Aquifer into the Alluvial Aquifer occurs. In the lower reaches of Bear Creek near the City of Redmond, groundwater from the Upland Aquifer that discharges as springs and interflow in the valley walls provides recharge to the Alluvial Aquifer.

Groundwater flow in the Alluvial Aquifer follows the slope of the Bear Creek Valley, with flow to the south and west as the Valley bends around Education Hill. The Alluvial Aquifer discharges into the Sammamish River Valley in the western part of downtown Redmond. Discharge from the Alluvial Aquifer also occurs from pumpage of the City wells. Minor amounts of groundwater from the Alluvial Aquifer seep downward into the Sea Level Aquifer.

Water Quality and Contamination Incidents

The City of Redmond has routinely collected samples from its water supply wells to meet public water supply system requirements specified by the State of Washington. These data indicate that the natural quality of water in the Alluvial Aquifer is excellent. The water has a low dissolved solids content and a moderate amount of hardness, with no unpleasant odor or taste. None of the constituents monitored have exceeded Maximum Contaminant Levels (MCLs) established by the U.S. Environmental Protection Agency and adopted by the Washington State Department of Health (DOH), except in situations associated with the following documented contamination incidents.

Contamination Incidents

- **1986 – Fecal Coliform at Well 5**
- **1996 – PERC Detected at Wells 1, 2, and 4**
- **2002 – MTBE Detected at Well 3**

The fecal coliform contamination of Well 5 resulted from a sewer main break and required taking the well out of production for six months and pumping the water to waste until the bacteria were no longer present. The perchloroethylene contamination of Wells 1, 2, and 4 was associated with a local dry cleaner. The source of the MTBE detected in Well 3 is unknown and still being investigated. In addition to these incidents, leaking diesel and gasoline from a refueling island was detected during the remodel of a facility about 500 feet upgradient of Well 5.

The increasing detection of solvents since 1987 is most likely indicative of slow leakage of chemicals to the soil and groundwater over time, from businesses that do not know the problem is occurring. These point-source uses of halogenated solvents (i.e. dry cleaning fluids, de-greasing solvents, paint remover) have been identified as posing high relative risk to all of the City water supply wells in the Wellhead Protection Report (1997).

The Report also evaluated and ranked potential contamination sources with respect to risk posed to the City wells: The following were identified as posing the highest risk to groundwater quality in Redmond:

- Point source use of halogenated solvents
- Storage and use of hazardous materials
- Stormwater and sanitary sewer system releases
- Nitrate from residential septic systems and application of fertilizers
- Spills along transportation corridors
- Releases from commercial and industrial septic systems
- Impacts from surface mining

Gaps in Existing Protection Measures

The City of Redmond has several programs in place that address groundwater contamination to some extent. These include the existing regulations in the Sensitive Areas Ordinance, the Public Works Department's Private Stormwater Maintenance Program, and the Redmond Fire Department's regulations on hazardous materials. Several gaps have been identified in the existing programs that result in inadequate protection of the City's drinking water wells.

- The Sensitive Areas Ordinance regulations only apply to new development or redevelopment and do not address existing facilities.
- The existing Aquifer Recharge Area Map in the Sensitive Areas regulations is not consistent with the Wellhead Protection Zones recommended in the Wellhead Protection Report adopted by Council and does not meet best available science requirements of GMA.
- The Public Works Private Stormwater Maintenance Program focuses on stormwater and is limited to inspections. This program only gives the Department authority to intervene if inspections indicate that the storage or handling of hazardous materials causes a discharge of those materials to the stormwater system.
- The Fire Department's focus on fire hazards and spills stems more from immediate public safety, thus the characterization of potential harm from given chemicals may have different criteria and its chemical threshold quantities may be too high to provide for adequate groundwater protection.

Given the limitations in existing protection and the ongoing contamination episodes at the City wells, the Wellhead Protection Program was developed as a comprehensive protection program. The proposed change to the Redmond Community Development Guide is one component of the proposed protection program. Other proposed protection measures will be added to and/or amend the Redmond Municipal Code and include additional performance standards and reporting requirements for businesses and industries. The City also proposes to develop a technical assistance program, education and outreach assistance, and a citywide early warning groundwater monitoring system.

IV. Alternatives

ISSUES CONSIDERED AND ALTERNATIVES

The proposed amendments to the Redmond Community Development Guide need to be understood in the context of the entire Wellhead Protection Program. Not all components of the Wellhead Protection Program are regulatory and not all of the regulatory components would be included in the Community Development Guide. There are a number of components that could be used individually or in different combinations to

protect the public water source. The major components are summarized in the following table.

Components of a Wellhead Protection Program

Stormwater Facility Inspections	Inspect stormwater facilities to ensure contaminants are not allowed to enter the groundwater supply.
Site Inspections	Inspect facilities that handle potential contaminants to ensure that the facilities are designed to properly handle and store the potential contaminants and that operators are using proper handling practices.
Enforcement	This can be a follow-up to inspections as well as an ongoing system to control the handling of potential contaminants.
Use Prohibitions – new or expanded uses	This can be prohibitions on uses or on activities.
Use Prohibitions – new and existing uses	Prohibitions on existing as well as new uses or activities.
Performance Standards	Best management practices and design to ensure that potential contaminants are properly handled and stored and that any potential spill could be contained.
Monitoring	Water quality monitoring at the wellhead is required for public use. A system of monitoring wells located throughout the City could detect potential contamination before it reaches the drinking water wells.
Education	This can be targeted or general to inform the public on the proper use, storage, and handling of potential contaminants.

The pros and cons of each of the above components are outlined in the following table.

Advantages and Disadvantages of Program components

	Pros	Cons
Stormwater Inspections	May prevent contamination if inspection discovers improper design or maintenance of the facility. May reduce quantity of material entering aquifer if caught during incident. Provides opportunity for education.	May miss spill entirely. Staffing requirements. Effectiveness is dependent on frequency of inspections.
Site Inspections	May prevent contamination if inspection discovers improper design, maintenance, or procedures. May reduce quantity of material entering the aquifer if caught during incident. Provides opportunity for education.	Staffing requirements. Effectiveness of program is dependent on frequency of inspections.

Enforcement	Enforcement of proper handling of materials may prevent contamination. May act as a deterrent to prevent some operators from using bad handling practices.	Staffing requirements to process paperwork. May require legal action that can be costly and has unpredictable outcome.
Use Prohibitions – new or expanded uses	Prevents added threats to contamination.	Does not address current uses.
Use Prohibitions – new & existing uses	The most effective control.	Costs to businesses and/or the City to relocate existing uses. Opposition by business community. Need to have capacity (land available) in other locations or business is lost to other communities.
Performance Standards	Effective method of preventing or containing contamination. Allows existing businesses to continue in operation.	Additional costs to new and existing facilities to comply with design and performance standards. Existing facilities need time to upgrade.
Monitoring	Allow early identification of contamination prior to reaching drinking water wells. Wells can be shut down and remediation measures can be employed.	Fails to prevent contamination events. Costly to install monitoring wells.
Education	Makes information on best management practices available to businesses.	City staffing/printing/mailing costs. May cost businesses employee time for training. Relies on voluntary compliance. May not prevent contamination.

City staff considered a number of alternatives for the Wellhead Protection Programs. These included the following:

- Maintain the Status Quo
- Enhanced Program with Emphasis on Education and Voluntary Compliance
- Enhanced Program with Emphasis on Regulatory Enforcement of Business and Industry Operating Standards
- Enhanced Program with Emphasis on Prohibition of Potential Contaminant Sources

City Council was informed of these alternatives in May 2000 and their direction was to enhance the existing program and emphasize regulatory enforcement (See Exhibit C). The various components of this program would add responsibilities to the City and

regulations to the business community. The proposed program would include the following components:

- Stormwater facility inspections would be continued.
- Site Inspections would be conducted to determine compliance with required performance and design standards. These inspections would be coordinated with existing City inspection programs.
- There would be enforcement options to enforce the program regulations.
- There would be prohibitions on new and expanding uses and activities included on the prohibition list.
- Performance standards such as facility design and handling and containment measures would be required for some new uses and would be phased in for some existing uses.
- A Citywide monitoring well system would be established to detect potential contamination. This component is needed in part because existing non-conforming uses would be allowed to remain.
- Education would be a component and would be targeted primarily at businesses with potential contaminants.

The following summarizes the issues of the Wellhead Protection Program that would be included in the Redmond Community Development Guide regulations.

Issue 1: Prohibited Uses

Alternatives considered

1. Prohibit certain uses from building or activities from occurring and do not allow the expansion of existing business/uses that fall in the prohibited category.
2. Prohibit certain uses and allow expansion of existing businesses.
3. Prohibit new and existing uses that pose contamination potential.
4. Do nothing.

Recommended alternative

1. Prohibit certain uses from building or activities from occurring and do not allow the expansion of existing business/uses that fall in the prohibited category.

Rationale for Recommendation

According to the U.S. Environmental Protection Agency, groundwater prevention programs are 5 to 200 times more cost effective when compared to groundwater clean up programs. One of the best ways to prevent contamination of groundwater wells is to prevent uses or activities using potentially harmful chemicals from locating or occurring near those wells. An example of a most stringent approach is the City of Renton, which required existing land uses that pose high risks to the aquifer to move out of the most highly susceptible aquifer protection area within ten years of passage of its aquifer protection ordinance. The difference between Redmond and Renton's approach is that the aquifer used by the City of Renton for its water supply has been declared a Sole Source Aquifer by the U.S. Environmental Protection Agency. That is, Renton does not

have an alternative drinking water source, as does Redmond. Therefore, a less restrictive approach has been proposed which evaluates the potential of some business and industrial uses to contaminate the aquifer and prohibits such new businesses, but does not "sunset" such existing business uses. Existing businesses that pose a hazard to the groundwater supply would be required to comply with appropriate performance standards to minimize contamination to the aquifer.

The current sensitive area regulations already prohibit certain uses in high significance aquifer recharge areas. The proposed regulations add some new prohibitions, but also narrow some existing prohibitions from broad categories to more specific ones. The net result is that the proposed regulations do not represent a very large change from current practice.

Issue 2: Aquifer Protection Map

Alternatives considered

1. Change the Aquifer recharge map
2. No Change

Recommended alternative

1. Change the Aquifer recharge map

Rationale for Recommendation

Revisions to the Growth Management Act (RCW 36.70A) require that Best Available Science be incorporated in the designation and protection of critical areas (RCW 36.70A.172). Guidance for the designation of critical aquifer recharge areas is provided in the "Wellhead Protection Program Guidance Document" (Washington State Department of Health Publication # 331-018, April 1995).

For highly susceptible water systems with 1,000 or more connections (the classification of the City of Redmond system), an initial delineation using the Calculated Fixed Radius method (a simple volumetric calculation) can be used, but must be upgraded within 5 years using numerical modeling or hydrogeologic mapping. The City of Redmond decided to apply groundwater modeling and hydrogeologic mapping, as documented in the Wellhead Protection Report. This approach used a recognized and proven computer model called "Two Dan" along with a compilation of available hydrogeologic mapping to delineate the 6-month, 1-year, 5-year, and 10-year capture zones for each of the five City water supply wells. These travel-time zones became the technical basis for mapping of Wellhead Protection Area Zones 1, 2, 3, and 4, as defined in the draft ordinance. The resulting map of Wellhead Protection Zones (see Exhibit A) includes some areas not previously mapped in the high significance recharge area while eliminating others. In the medium significance area there is a broader change. Much of Education Hill not previously included is now in this type of zone, however, there would be little impact to land uses because of the residential nature of existing and zoned land use. A number of industrial/BP zoned parcels and a large part of the Sammamish Valley have been eliminated from inclusion.

Since the method for delineation of the Wellhead Protection Zone map relies on better scientific knowledge and because the net effect of how much land falls under sensitive areas ordinance regulations is relatively little, this is the preferred alternative.

Issue 3: Performance Standards

Alternatives considered

1. Change existing performance standards and base them on time of travel zone location.
2. No change.

Recommended alternative

1. Change existing performance standards and base them on time of travel zone location.

Rationale for Recommendation

The existing sensitive areas ordinance regulations only have specific performance standards for the medium significance recharge areas. Past regulation for the high recharge area relied on prohibited uses to prevent contamination although the prohibited uses were not inclusive of all uses that could pose a hazard. By having performance standards for the most susceptible zones there is a greater protection afforded against contamination. The recommended performance standards have been developed using Department of Ecology and Department of Health guidelines, Uniform Fire Code guidelines, and industry Best Management Practices. While some standards will add new regulation, others actually narrow the scope of the regulation when compared to existing standards, therefore reducing regulation. In some cases the same performance standards would be required for certain businesses under our fire code and are not adding new regulatory requirements. The proposal provides greater specificity to address the most serious threats to an aquifer. Further by introducing performance standards, there is the ability to continue to allow certain industrial/BP uses and not consider the alternative of a zone change. By basing standards on time of travel zones, the standards relate more directly to the degree of the contamination threat.

V. Supporting Analysis: Facts and Conclusions

A. Existing Conditions

Approximately 40 percent of the City's water supply is provided from City wells. The City's groundwater wells draw from an aquifer that has a high degree of susceptibility to contamination. The City has conducted modeling to delineate Wellhead Protection Zones based on time of travel to drinking water wells. The City has also conducted a susceptibility analysis and has determined the greatest threats of contamination to its wells. The City's existing protection mechanisms have not been adequate to prevent contamination. These past contamination events indicate a need to implement greater protection to Redmond supply wells.

B. Compliance with the Criteria for Comprehensive Plan or Development Regulations Amendments

The following is an analysis of how the proposed amendments comply with the subject regulations and policies. The regulations and policies are stated first and the analysis follows the policy or regulation.

Comprehensive Plan Policy LU-142. Comprehensive Plan Policy LU-142 and Redmond Community Development Guide Section 20F.40.50 establish criteria for comprehensive plan map and policy amendments. The compliance with each criterion is discussed below:

1. Consistency with the Growth Management Act (GMA), the State of Washington Department of Community, Trade and Economic Development Procedural Criteria, and the King County Countywide Planning Policies.

(a) The proposed regulations are consistent with the Growth Management Act that requires that jurisdictions designate and protect critical areas, including critical aquifer recharge areas (RCW 36.70A.170). The proposed regulations provide protection for Wellhead Protection Zones that are critical aquifer recharge areas. The GMA requires that critical area designation and protection include best available science (RCW 36.70A.172). The methodology for designating Wellhead Protection Zones follows Department of Ecology and Department of Health guidelines for best available science.

(b) Procedural Criteria

The notice concerning the Wellhead Protection regulations was submitted to the proper agencies on December 20, 2002 as a part of the yearly comprehensive plan amendment package and the sixty-day time period as required by WAC 365-195-820 is passed.

(c) Countywide Planning Policies

CA-5 All jurisdictions shall adopt policies to protect the quality and quantity of groundwater where appropriate:

a. Jurisdictions that are included in Ground Water Management Plans shall support the development, adoption, and implementation of the Plans; and

b. The Seattle-King County Department of Public Health and affected jurisdictions shall develop Countywide policies outlining best management practices within aquifer recharge areas to protect public health; and

c. King County and groundwater purveyors including cities, special purpose districts, and others should jointly:

1. Prepare groundwater recharge area maps using common criteria and incorporating information generated by Ground Water Management Plans and purveyor studies;

- 2. Develop a process by which land use jurisdictions will review, concur with, and implement, as appropriate, purveyor Wellhead Protection Programs required by the Federal Safe Drinking Water Act;*
- 3. Determine which portions of mapped recharge areas and Wellhead Protection Areas should be designated as critical; and*
- 4. Update critical areas maps as new information about recharge areas and Wellhead Protection Areas becomes available.*

The proposed regulations implement this policy by protecting the quality of groundwater and by updating the critical area map due to new information.

CA-6 Land use actions should take into account the potential impacts on aquifers determined to serve as water supplies. The depletion and degradation of aquifers needed for potable water supplies should be avoided or mitigated; otherwise a proven, feasible replacement source of water supply should be planned and developed to compensate for potential lost supplies.

The proposed regulations restrict land use activities or ensure that those activities with potential to impact water supply aquifers have sufficient safeguards to avoid contamination.

2. Consistency with the Comprehensive Plan policies and the designation criteria.

NE-45 Redmond and other jurisdictions shall protect the quality of ground water used for public water supplies to insure adequate sources of potable water for Redmond and the region. The level of protection provided shall correspond with the potential for contaminating the municipal water supply aquifer. The overall goal should be nondegradation of ground water quality. Waste water and potentially contaminated stormwater should not be discharged to ground water.

The proposed regulations implement this policy by assuring certain actions that will protect the quality of groundwater. The proposed regulations set up a system that relates the threat of contaminations to the level of control. It also would help ensure that contaminated stormwater would not enter the groundwater system.

NE-46 Redmond should adopt and implement an aggressive program to protect the municipal water supply aquifer.

The proposed regulations together with other implementing actions constitute a fairly aggressive program to protect the municipal water supply aquifer.

UT-61 Design and construction standards should address rate of discharge, water quality, and method of storm drainage control.

The proposed regulations propose standards that address storm drainage water quality.

N-SEF-1 Provide for a major employment center with family-oriented housing and supportive uses while protecting the aquifer and environmentally sensitive rural areas along the subarea's eastern border.

The proposed regulations allow for employment land uses to continue to exist in the SE Redmond neighborhood while at the same time proposing methods to protect the underlying aquifer.

UT-22 Continue to utilize the Redmond well system as long as water quality is in accordance with state and federal drinking water regulations.

UT-23 maintain a Wellhead Protection Program as long as groundwater sources remain viable. This program shall guide land use decisions, development regulations, stormwater facility requirements, and other measures necessary to protect Redmond's well system.

The proposed regulations are part of a Wellhead Protection Program that would protect groundwater quality so that the groundwater resources can continue to serve as the City's water source. The proposed regulations include land use guidelines, development regulations, stormwater facility requirements, and performance standards to protect the well system.

3. The capability of the land including the prevalence of sensitive areas.

Not applicable.

4. Consistency with the preferred growth and development pattern in the Land Use Chapter of the Comprehensive Plan.

Some uses would be restricted, however, it is still possible to meet the preferred growth pattern called for.

5. The capacity of public facilities and services and whether public facilities and services can be provided cost-effectively at the intensity allowed by the designation.

The protection of the aquifer would ensure continued cost-effect water service.

6. Whether the allowed uses are compatible with nearby uses.

Not applicable.

7. If the purpose of the amendment is to change the allowed uses in an area, the need for the land uses which would be allowed by the

Comprehensive Plan change and whether the change would result in the loss of the capacity to accommodate other needed land uses, especially whether the proposed change complies with the policy of no net loss of housing capacity.

This may reduce the number of land uses by calling for a prohibition of some uses in certain areas of the City. However, this may also add to the uses currently allowed uses because the current regulations broadly categorize certain prohibited uses and this proposal would narrow that list to a specific list. The change in the map for aquifer protection would lead to some business and manufacturing park zones allowing a broader range of uses. Where the zones have been broadened, the zoning is primarily residential which already prohibits those uses. Housing capacity should not be affected by this proposal.

- 8. For issues which have been considered within the last four annual updates or comprehensive plan amendments, whether there has been a change in circumstances that makes the proposed plan designation or policy change appropriate or whether the amendment is needed to remedy a mistake.**

Not applicable.

V. Authority and Environmental, Public and Agency Review

A. Subject Matter Jurisdiction

The Redmond Planning Commission and Redmond City Council have subject matter jurisdiction to hear and decide whether to adopt the proposed Development Guide Amendment.

B. The Washington State Environmental Policy Act (SEPA)

A SEPA checklist has been prepared for the proposed amendment. The City issued a determination of non-significance on July 17, 2003 (See attached Exhibit D). The appeal period closed on July 31, 2003.

C. Sixty-day Agency Review

The proposed regulations have been sent to the appropriate agencies and the schedule for adoption provides for the sixty-day timeframe.

D. Public Involvement

Development of the Wellhead Protection Regulations has involved extensive public participation and educational activities. These are detailed in Exhibit E. Public participation activities associated with development of the Wellhead Protection Report included two focus group discussions in 1996 and three workshops in 1997. Development of the ordinance included workshops and

meetings with the Chamber of Commerce and business groups. Following release of the initial draft ordinance in February 2002, City staff met regularly with representatives of the business community to revise the ordinance. The City has distributed a number of educational materials on the ordinance and recruited comment on the ordinance from the business community and general public. Several brochures and letters have been sent to Redmond residents and businesses and several articles have appeared in local newspapers and newsletters. All totaled the City has provided more than 75 various educational and involvement opportunities on the Wellhead Protection Ordinance.

E. Appeals

A Development Guide Amendment is a Type VI permit. Final action is taken by the City Council. The action of the City Council on a Type VI proposal may be appealed by filing a petition with the Growth Management Hearings Board pursuant to the requirements set forth in RCW 36.70A.290. The petition is required to be filed within the 60-day time period set forth in RCW 36.70A.290(2).

VI. Exhibits

- Exhibit A: Proposed Regulations and Wellhead Protection Zone Map
- Exhibit B: Letters from State offices:
 - Dept of Health
 - Dept of Ecology
 - Office of Community Development.
- Exhibit C: Staff Report on Alternatives for Aquifer Protection Ordinance
- Exhibit D: SEPA Checklist
- Exhibit E: Record of Public Involvement

Roberta Lewandowski, Planning Director

Date

Dave Rhodes, Public Works Director

Date

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